

## REMARKS

This is intended as a full and complete response to the Final Office Action dated March 27, 2007, having a shortened statutory period for response set to expire on June 27, 2007. Claims 1-22 have been examined. The Examiner rejected claims 8-11 and 13-14 under 35 U.S.C. § 102(b) as being anticipated by Liou (U.S. 6,292,299). The Examiner rejected claims 15 and 18-22 under 35 U.S.C. § 103(a) as being obvious over Scobey (U.S. 6,320,996). The Examiner rejected claims 1-7 under 35 U.S.C. § 103(a) as being obvious over Scobey in view of Baumeister (U.S. 5,333,090). The Examiner rejected claims 1-2, 12, and 15 under 35 U.S.C. § 103(a) as being obvious over Liou (U.S. 6,292,299) in view of Baumeister. The Examiner rejected claims 16 and 17 under 35 U.S.C. § 103(a) as being obvious over Scobey in view of Lecture (Lecture 25, 30 November 1999). The Examiner rejected claim 22 under 35 U.S.C. § 103(a) as being obvious over Liou in view of Scobey.

### Examiner Interview

Applicants would like to thank the Examiner for conducting the interview on May 24, 2007. The arguments herein are presented in accordance with the substance of the interview to place the application in better condition for allowance.

### Claim Objections

The Examiner objected to claim 15 due to informalities. In response, Applicants have amended claim 15 accordingly. Therefore, Applicants respectfully request the objection to claim 15 be removed and allowance of the same.

### Claim Rejections Under 35 U.S.C. § 102(b)

The Examiner rejected claim 8 as being anticipated by Liou. In response, Applicants have amended claim 8.

As amended, claim 8 includes the limitation of a thin film filter, wherein the thin film filter is movable between a pass-through state, a transient state, and a blocking state along a single axis. Liou does not disclose this limitation. For Example, Liou discloses a tunable optical filter that requires the filter to move along at least two axes (i.e. X axis and Y axis) in order to operate. In other words, Liou fails to disclose a thin film filter that is configured to move

between several states along a single axis, as recited in claim 8. This failure precludes Liou from anticipating claim 8. Therefore, Applicants respectfully request the 102(b) rejection of claim 8 be removed and allowance of the same. Additionally, claims 9-11 and 13-14 depend from claim 8 and these claims are allowable for at least the same reasons as claim 8.

Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected claims 15 and 18-22 as being obvious over Scobey. The Examiner rejected claims 1-7 as being obvious over Scobey in view of Baumeister. The Examiner rejected claims 1-2, 12, and 15 as being obvious over Liou in view of Baumeister. The Examiner rejected claims 16 and 17 as being obvious over Scobey in view of Lecture. The Examiner rejected claim 22 as being obvious over Liou in view of Scobey. In response, Applicants have amended claims 1, 15, 18, and 22.

As amended, claims 1, 15, 18, and 22 include limitations that relate to “hitless switching” as generally set forth in the present application on pgs 8-10. For instance, claim 1 includes the limitation of a thin film filter having a thin film coating and a reflective material, where the thin film filter is movable between a pass-through state, a transient state, and a blocking state along a single axis, whereby in the transient state a portion of the optical signal projects on the thin film coating and another portion of the optical signal projects on the reflective material. Claim 15 includes the limitation of a thin film filter having a reflective material coated on a lower surface thereof, where the reflective material has a thickness  $t$  in which the thickness  $t$  affects the intensity of a light beam that is projected from a cross junction of the thin film filter, the cross junction of the thin film filter being located between the upper surface and the lower surface, where the thickness  $t$  is selected so that the intensity of the light beam that is projected from the cross junction of the thin film filter is at a maximum and where the thin film filter is movable between a pass-through state, a transient state and a blocking state along a single axis such that the light beam projects on the upper surface and on the lower surface when the thin film filter is in the transient state. Claim 18 includes the limitation of a first thin film filter chip having a first face and a second face, where the first face of the first thin film filter chip is partially coated with a thin film to transmit a specific wavelength of a light signal and is partially coated with a reflective material to a thickness that allows the specific wavelength of the light signal to undergo hitless switching such that a portion of a light beam projects on the thin film and another

portion of the light beam projects on the reflective material at substantially the same time. Additionally, claim 22 includes the limitation of a hitless thin film filter that is movable along a single axis between a pass-through state, a blocking state, and a transient state, whereby in the transient state a portion of a light beam projects on the upper one-half and another portion of the light beam projects on the lower one-half.

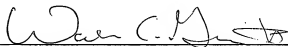
Scobey and/or the combination of Scobey with Liou or Baumeister or Lecture or the combination of Liou and Baumeister fails to disclose these limitations. Specifically, Liou discloses a tunable optical filter that requires the filter to move along at least an X axis and a Y axis in order to operate as set forth above. Further, Liou does not disclose a transient state, whereby a portion of a light beam projects on an upper section of the filter and another portion of the light beam projects on a lower section of the filter. Scobey merely discloses a thin film filter that is movable from a blocking position where an input optical signal only hits a broadband reflective region and a pass-through position where the input optical signal only hits a wavelength selective region (see Scobey, col. 7, lines 60-65 and Figures 2 and 3). In other words, Scobey does not disclose a transient state, whereby a portion of a light beam projects on the wavelength selective region and another portion of the light beam projects on the broadband reflective region. Moreover, neither Baumeister nor Lecture cures the deficiencies of Scobey or Liou.

As the foregoing illustrates, Scobey and/or the combination of Scobey with Liou or Baumeister or Lecture or the combination of Liou and Baumeister fails to disclose the limitations in claims 1, 15, 18, and 22. This failure precludes these references from rendering claims 1, 15, 18, and 22 obvious. Therefore, Applicants respectfully request the § 103(a) rejection of claims 1, 15, 18, and 22 be removed and allowance of the same. Additionally, since claims 2-7 depend from claim 1 and claims 19-21 depend from claim 18, these claims are allowable for at least the same reasons as claims 1 and 18.

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the case is in condition for allowance. If the Examiner has any questions, please contact the Applicants' undersigned representative at the number provided below.

Respectfully submitted,



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